

SEQUENCE LISTING

<110> Ruelle, Jean-Louis
Thonnard, Joelle

<120> Novel Compounds

<130> BM45348

<150> PCT/EP00/00135
<151> 2000-01-10

<160> 16

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 804
<212> DNA
<213> Neisseria meningitidis

<400> 1
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gaagcccagg acgaattgaa cagcagcaat tatacgcggg ctgtcaagtt atacgaaatc 180
ttgaaatcgc gcttccccac cagccgccat gcccggcaat cccaactgga taccgcatac 240
gccttattata aagacgatga aaaagacaag gctctggcgg caatcgaacg cttccgccc 300
ctccatccgc agcatccgaa tatggattac gcgcgtgtatc tgcgcggctt ggtgcgtt 360
aacgaagacc agtccttctt gaacaaactg gcctcgcaag actggtccga ccgcgaccgc 420
aaagccaacc gcgaagtaac ccaggcgttt gcggaactcg tccaacgcctt ccccaacagc 480
aaatacgcgc ccgatgcgac cgacgcatg gtcaaactgg tcgatgcact gggcggcaat 540
gaaatgtcgg tggcgcgcta ctacatgaaa cgcggcgcatt atatcgccgc cgccaaccgc 600
gccccaaaaaa ttatcgcgag ctaccaaaaat acacgctatg tcgaagaatc gctcgccatc 660
ttgaaacttg cctaccaaaa actcggcaaa ccacagctt ccgcccatac gcccgcgtg 720
ttgaaacca acttccgaa aagcccgtt ttgacgcacg cttggcagcc cgacgatatg 780
ccttgggtggc gttactggca ttaa 804

<210> 2
<211> 267
<212> PRT
<213> Neisseria meningitidis

<400> 2
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Cys Ala Thr Gln Gly Thr Val Asp Lys Asp Ala Gln Ile Thr Gln Asp
20 25 30
Trp Ser Val Glu Lys Leu Tyr Ala Glu Ala Gln Asp Glu Leu Asn Ser
35 40 45
Ser Asn Tyr Thr Arg Ala Val Lys Leu Tyr Glu Ile Leu Glu Ser Arg
50 55 60
Phe Pro Thr Ser Arg His Ala Arg Gln Ser Gln Leu Asp Thr Ala Tyr
65 70 75 80
Ala Tyr Tyr Lys Asp Asp Glu Lys Asp Lys Ala Leu Ala Ile Glu
85 90 95
Arg Phe Arg Arg Leu His Pro Gln His Pro Asn Met Asp Tyr Ala Leu
100 105 110
Tyr Leu Arg Gly Leu Val Leu Phe Asn Glu Asp Gln Ser Phe Leu Asn
115 120 125
Lys Leu Ala Ser Gln Asp Trp Ser Asp Arg Asp Pro Lys Ala Asn Arg

130	135	140
Glu Val Thr Gln Ala Phe Ala Glu Leu Val Gln Arg Phe Pro Asn Ser		
145	150	155
Lys Tyr Ala Ala Asp Ala Thr Ala Arg Met Val Lys Leu Val Asp Ala		160
165	170	175
Leu Gly Gly Asn Glu Met Ser Val Ala Arg Tyr Tyr Met Lys Arg Gly		
180	185	190
Ala Tyr Ile Ala Ala Asn Arg Ala Gln Lys Ile Ile Gly Ser Tyr		
195	200	205
Gln Asn Thr Arg Tyr Val Glu Glu Ser Leu Ala Ile Leu Glu Leu Ala		
210	215	220
Tyr Gln Lys Leu Gly Lys Pro Gln Leu Ala Ala Asp Thr Arg Arg Val		
225	230	235
Leu Glu Thr Asn Phe Pro Lys Ser Pro Phe Leu Thr His Ala Trp Gln		240
245	250	255
Pro Asp Asp Met Pro Trp Trp Arg Tyr Trp His		
260	265	

<210> 3
<211> 1404
<212> DNA
<213> Neisseria meningitidis

<400> 3	
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tgcaccatga ttccccata cgagcagccc aaagtgcgaag ttgccaaac gtttaaaaac	120
gataccgccc acagcggcat ccgtcggtc gattnagggtt ggcatgacta ttttgcgcac	180
ccgcgcctgc aaaagctgat cgacatcgca ctcgagcgca ataccagttt gcgtaccgccc	240
gtattgaaca gcgaaatcta cccgaaaccaa tacatgattt agcgcacaa cctcctgccc	300
acgcttgcgc ccaatgcgaa cggctcgccc caaggcagct tgagcggcgg caatgtcagc	360
agcagctaca atgtcgact gggtgcggca tcttacgaac tcgacctgtt cggacgcgtc	420
cgcacgcgca gcgaaggcgc actgcaaggc tattttgcaat gtgtcgccaa ccgcgtatgcg	480
gcacatttga gcctgattgc caccgttgc aaaggctatt tcaacgaacg ttatgccc	540
gaagcgatgt ctttggcga gcgtgtttt aaaaacgcgcg aggaaaccta caagctgtcc	600
gaattacgtt acaaggcagg cgtgatttcc gccgtcgccc tacgtcagca ggaagccctg	660
atcgaatctg ccaaaggcga ttatgcccatt gccgcgcgc gccgcgaaca ggcgcgcaat	720
gccttggcaa ccttgattaa ccaaccgata cccgaagacc tgccgtcgcc tttgcccgt	780
gacaaggcgt ttttggta aaaaactgccc gccgggttga gttccgaagt attgctcgac	840
cgtcccgata tccgtgctgc cgaacacgcgc ctcaaacagg caaacgccaa tattggcgc	900
gcacgcgcgc ctttttccc atccatccgc ctgaccggaa ccgtcggtac gggttctgccc	960
gaattgggtt ggttgttca aagcggcgcg ggcgttttgt cgttcgccgt gtcattacc	1020
ctggcgattt ttacctgggg tacgaacaa gccaacctt atgttagccaa gctgcgc	1080
caggcacaaa tcgttgctta tgaaggccgc gtccaatccg catttcaaga cgtggcaaaac	1140
gcattggcgg cgcgcgagca gctggataaa gcctatgcg ctttaagcaa acaaaggcgc	1200
gcctctaag aggcggtgcg ctgggtcgcc ctgcgttaca agcacggcgt atccggcgc	1260
ctcgacttgc tcgatgcgga acgcagcgc tatgcggcgg agggtgcggc tttgtcggca	1320
caactgaccc gcgcccggaaa ctttgcgtt ttgtacaagg cactcgccgg cggattgaaa	1380
cgggataccc aaaccgacaa ataa	1404

<210> 4
<211> 467
<212> PRT
<213> Neisseria meningitidis

<400> 4	
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Ala Leu Ser Ala Cys Thr Met Ile Pro Gln Tyr Glu Gln Pro Lys Val	
20 25 30	
Glu Val Ala Glu Thr Phe Lys Asn Asp Thr Ala Asp Ser Gly Ile Arg	
35 40 45	
Ala Val Asp Leu Gly Trp His Asp Tyr Phe Ala Asp Pro Arg Leu Gln	

50	55	60
Lys Leu Ile Asp Ile Ala Leu Glu Arg Asn Thr Ser Leu Arg Thr Ala		
65	70	75
Val Leu Asn Ser Glu Ile Tyr Arg Lys Gln Tyr Met Ile Glu Arg Asn		80
85	90	95
Asn Leu Leu Pro Thr Leu Ala Ala Asn Ala Asn Gly Ser Arg Gln Gly		
100	105	110
Ser Leu Ser Gly Gly Asn Val Ser Ser Tyr Asn Val Gly Leu Gly		
115	120	125
Ala Ala Ser Tyr Glu Leu Asp Leu Phe Gly Arg Val Arg Ser Ser Ser		
130	135	140
Glu Ala Ala Leu Gln Gly Tyr Phe Ala Ser Val Ala Asn Arg Asp Ala		
145	150	155
Ala His Leu Ser Leu Ile Ala Thr Val Ala Lys Ala Tyr Phe Asn Glu		160
165	170	175
Arg Tyr Ala Glu Glu Ala Met Ser Leu Ala Gln Arg Val Leu Lys Thr		
180	185	190
Arg Glu Glu Thr Tyr Lys Leu Ser Glu Leu Arg Tyr Lys Ala Gly Val		
195	200	205
Ile Ser Ala Val Ala Leu Arg Gln Gln Glu Ala Leu Ile Glu Ser Ala		
210	215	220
Lys Ala Asp Tyr Ala His Ala Ala Arg Ser Arg Glu Gln Ala Arg Asn		
225	230	235
Ala Leu Ala Thr Leu Ile Asn Gln Pro Ile Pro Glu Asp Leu Pro Ala		240
245	250	255
Gly Leu Pro Leu Asp Lys Gln Phe Phe Val Glu Lys Leu Pro Ala Gly		
260	265	270
Leu Ser Ser Glu Val Leu Leu Asp Arg Pro Asp Ile Arg Ala Ala Glu		
275	280	285
His Ala Leu Lys Gln Ala Asn Ala Asn Ile Gly Ala Ala Arg Ala Ala		
290	295	300
Phe Phe Pro Ser Ile Arg Leu Thr Gly Thr Val Gly Thr Gly Ser Ala		
305	310	315
Glu Leu Gly Leu Phe Lys Ser Gly Thr Gly Val Trp Ser Phe Ala		320
325	330	335
Pro Ser Ile Thr Leu Pro Ile Phe Thr Trp Gly Thr Asn Lys Ala Asn		
340	345	350
Leu Asp Val Ala Lys Leu Arg Gln Gln Ala Gln Ile Val Ala Tyr Glu		
355	360	365
Ala Ala Val Gln Ser Ala Phe Gln Asp Val Ala Asn Ala Leu Ala Ala		
370	375	380
Arg Glu Gln Leu Asp Lys Ala Tyr Asp Ala Leu Ser Lys Gln Ser Arg		
385	390	395
Ala Ser Lys Glu Ala Leu Arg Leu Val Gly Leu Arg Tyr Lys His Gly		400
405	410	415
Val Ser Gly Ala Leu Asp Leu Leu Asp Ala Glu Arg Ser Ser Tyr Ala		
420	425	430
Ala Glu Gly Ala Ala Leu Ser Ala Gln Leu Thr Arg Ala Glu Asn Leu		
435	440	445
Ala Asp Leu Tyr Lys Ala Leu Gly Gly Leu Lys Arg Asp Thr Gln		
450	455	460
Thr Asp Lys		
465		

<210> 5
<211> 420
<212> DNA
<213> Neisseria meningitidis

<400> 5
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aatgtcgccg ggttgatgggt tgaatgccc caggagaac gttctgtcgt tgtgcagggtt

60
120

cccgcgacaa	ataaccgct	ttccgatacg	gtagctgtcg	gaatgattaa	aacatccggt	180
tcgccttcgg	catcaaatat	gattgaaatg	ctcggcgccg	acaatatcaa	cgtcgccgtg	240
gtggaaagca	gccaaatgct	taataaggcg	accgacttt	attccttaaa	ccatgcaaag	300
aaagtccgaa	ataatgtcag	tgttatatg	atggcgaca	gcgaaaagtga	caaggccgat	360
ttgaaaacg	cggcaaatgc	caaaaatatc	aaattgcatt	atttcttaa	ccaaaaataa	420

<210> 6
<211> 139
<212> PRT
<213> Neisseria meningitidis

<400> 6

Met	Lys	Lys	Leu	Leu	Met	Ile	Thr	Leu	Thr	Gly	Met	Leu	Ala	Ala	Cys
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Ala	Thr	Gly	Val	Asn	Val	Gly	Arg	Leu	Met	Val	Glu	Met	Pro	Gln	Gly
						20		25						30	
Glu	Arg	Ser	Val	Val	Val	Gln	Val	Pro	Ala	Thr	Asn	Asn	Pro	Leu	Ser
						35		40				45			
Asp	Thr	Val	Ala	Val	Gly	Met	Ile	Lys	Thr	Ser	Gly	Ser	Pro	Ser	Ala
						50		55			60				
Ser	Asn	Met	Ile	Glu	Met	Leu	Gly	Ala	Asp	Asn	Ile	Asn	Val	Gly	Val
						65		70			75			80	
Val	Gly	Ser	Ser	Gln	Met	Leu	Asn	Lys	Ala	Thr	Ala	Leu	Tyr	Ser	Leu
						85		90				95			
Asn	His	Ala	Lys	Lys	Val	Gly	Asn	Asn	Val	Ser	Val	Tyr	Met	Met	Gly
						100		105				110			
Asp	Ser	Glu	Ser	Asp	Lys	Ala	Asp	Leu	Glu	Asn	Ala	Ala	Asn	Ala	Lys
						115		120				125			
Asn	Ile	Lys	Leu	His	Tyr	Phe	Phe	Asn	Gln	Lys					
						130		135							

<210> 7
<211> 516
<212> DNA
<213> Neisseria meningitidis

<400> 7

atgaaaatca	aacaaatcgt	caaaccggc	ttggcagtt	tggcggcg	cgttctgtct	60
gcctgcgcaa	ccaaaagcaa	cgtcaaagcc	gacggAACGA	ccgacaaatcc	ggttttccccg	120
aaaccctatt	ccgtaacgct	cgacaacaat	cgcggtacat	tcccgcacta	tgacgaattg	180
gacttgcgt	gtcccggtct	gaccaaagac	gacatctaca	aaatcctggg	tcgtccgcatt	240
tacgacgaag	gtatgtacgg	cgtgcgcgaa	tgggattatc	tgttccactt	ccacaccccg	300
ggcgttaggca	tcgaccctga	aaacacttcc	ggcgtagaag	gcattaccac	ctgtcaatac	360
aaaattttt	tcgataaaga	caaatttgc	cgcagttct	actggaaGCC	cgtcttccccg	420
aaagatgccg	cctgtccg	ccccgcaccc	aaagccgagc	cgcaagtcat	catccgcgaa	480
atcgtccccg	ccaaacccaa	acgcatccgc	caataa			516

<210> 8
<211> 171
<212> PRT
<213> Neisseria meningitidis

<400> 8

Met	Lys	Ile	Lys	Gln	Ile	Val	Lys	Pro	Gly	Leu	Ala	Val	Leu	Ala	Ala
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Gly	Val	Leu	Ser	Ala	Cys	Ala	Thr	Lys	Ser	Asn	Val	Lys	Ala	Asp	Gly
						20		25			30				
Thr	Thr	Asp	Asn	Pro	Val	Phe	Pro	Lys	Pro	Tyr	Ser	Val	Thr	Leu	Asp
						35		40			45				
Asn	Asn	Arg	Gly	Thr	Phe	Pro	Thr	Tyr	Asp	Glu	Leu	Asp	Leu	Met	Arg
						50		55			60				
Pro	Gly	Leu	Thr	Lys	Asp	Asp	Ile	Tyr	Lys	Ile	Leu	Gly	Arg	Pro	His

65	70	75	80
Tyr Asp Glu Gly Met Tyr Gly Val Arg	Glu Trp Asp Tyr Leu Phe His		
85	90	95	
Phe His Thr Pro Gly Val Gly Ile Asp Pro Glu Asn Thr Ser Gly Val			
100	105	110	
Glu Gly Ile Thr Thr Cys Gln Tyr Lys Ile Ile Phe Asp Lys Asp Lys			
115	120	125	
Phe Ala Arg Ser Phe Tyr Trp Asn Pro Val Phe Pro Lys Asp Ala Ala			
130	135	140	
Cys Pro Pro Pro Ala Pro Lys Ala Glu Pro Gln Val Ile Ile Arg Glu			
145	150	155	160
Ile Val Pro Ala Lys Pro Lys Arg Ile Arg Gln			
165	170		

<210> 9
<211> 816
<212> DNA
<213> Neisseria meningitidis

<400> 9			
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actatgacct catgtgaacc tgtgaatgaa aagacagatc aaaaaggcagt aagtgcgcaa			120
caggctaaag aacaaaccag tttcaacaat cccgagccaa tgacaggatt tgaacatacg			180
gttacatttgc attttcaggg caccaaaatg gttatcccct atggctatct tgacacggat			240
acgcaagaca atgccacaaa atggcttcc gacacgccc ggcaggatgc ttactccatt			300
aatttgatag agatttagcgt ctattacaaa aaaaccgacc aaggctgggt tcttgagcca			360
tacaaccaggc aaaacaaagc acactttatc caatttctac gcgacgggtt ggatagcgtg			420
gacgatatttgc ttatccgaaa agatgcgtgt agtttaagta cgactatggg agaaagattg			480
cttacttacg gggtaaaaaa aatgccatct gcctatcctg aatacgggc ttatgaagat			540
aaaagacata ttccctgaaaaa tccataatttt catgaatttt actatattaa aaaaggagaa			600
aatccggcga ttattactca tcggaataat cgaataaacc aaactgaaga agatagttat			660
agcactagcg taggttccctg tattaacggt ttcacggtagt agtattaccc gtttattcgg			720
gaaaagcagc agctcacaca gcaggaggttg gtagggttac accaacaagt agagcaattg			780
gtacagagtt ttgtaaacaatccaaataaa aaataaa			816

<210> 10
<211> 271
<212> PRT
<213> Neisseria meningitidis

<400> 10			
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Gly Ser Val Phe Thr Met Thr Ser Cys Glu Pro Val Asn Glu Lys Thr			
20	25	30	
Asp Gln Lys Ala Val Ser Ala Gln Gln Ala Lys Glu Gln Thr Ser Phe			
35	40	45	
Asn Asn Pro Glu Pro Met Thr Gly Phe Glu His Thr Val Thr Phe Asp			
50	55	60	
Phe Gln Gly Thr Lys Met Val Ile Pro Tyr Gly Tyr Leu Ala Arg Tyr			
65	70	75	80
Thr Gln Asp Asn Ala Thr Lys Trp Leu Ser Asp Thr Pro Gly Gln Asp			
85	90	95	
Ala Tyr Ser Ile Asn Leu Ile Glu Ile Ser Val Tyr Tyr Lys Lys Thr			
100	105	110	
Asp Gln Gly Trp Val Leu Glu Pro Tyr Asn Gln Gln Asn Lys Ala His			
115	120	125	
Phe Ile Gln Phe Leu Arg Asp Gly Leu Asp Ser Val Asp Asp Ile Val			
130	135	140	
Ile Arg Lys Asp Ala Cys Ser Leu Ser Thr Thr Met Gly Glu Arg Leu			
145	150	155	160
Leu Thr Tyr Gly Val Lys Met Pro Ser Ala Tyr Pro Glu Tyr Glu			

	165	170	175												
Ala	Tyr	Glu	Asp	Lys	Arg	His	Ile	Pro	Glu	Asn	Pro	Tyr	Phe	His	Glu
				180					185				190		
Phe	Tyr	Tyr	Ile	Lys	Lys	Gly	Glu	Asn	Pro	Ala	Ile	Ile	Thr	His	Arg
				195				200				205			
Asn	Asn	Arg	Ile	Asn	Gln	Thr	Glu	Glu	Asp	Ser	Tyr	Ser	Thr	Ser	Val
				210				215			220				
Gly	Ser	Cys	Ile	Asn	Gly	Phe	Thr	Val	Gln	Tyr	Tyr	Pro	Phe	Ile	Arg
				225				230			235			240	
Glu	Lys	Gln	Gln	Leu	Thr	Gln	Gln	Glu	Leu	Val	Gly	Tyr	His	Gln	Gln
				245				250			255				
Val	Glu	Gln	Leu	Val	Gln	Ser	Phe	Val	Asn	Asn	Ser	Asn	Lys	Lys	
				260				265			270				

<210> 11
<211> 717
<212> DNA
<213> Neisseria meningitidis

<400> 11	60
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gacgcttattc cctatccgt tccactctg caagaccgtt tggattatct ggaaggcaca	240
ctcgccgc tgtcgaacga agtggaaacc tttaaacggca aagtcaaagc actggagcat	300
gcgaaaacac acccttccgg tagggcatac gtccaaaaac tcgacgaccg caagttgaaa	360
gagcattacc tcaataccga aggcggcagc gcatccgcac ataccgtcga aaccgcacaa	420
aacctctaca atcaggcact caaacactat aaaagcggca ggttttctgc cgcaagccgc	480
ctgttgaag gcgcggacgg aggcgacggc ggcagcatcg cgcaacgcag tatgtacctg	540
ttgctgcaaa gcagggcgcg tatgggcaac tgcgaatccg tcatcgaaat cggagggcgt	600
tacgccaacc gtttcaaaga cagcccaacc gcgcggaaag ccatgttcaa aatcgccgaa	660
tgccaataca gtttgcagca gaaagacatt gcaaggcga cttggcgcag cctgatacag	717
gcttacccga gcagccggc ggcaaaacgc gccggcgcag ccgtacgcaa acgatacg	

<210> 12
<211> 238
<212> PRT
<213> Neisseria meningitidis

<400> 12			
Met Lys Thr Lys Leu Pro Leu Phe Ile Ile Trp Leu Ser Val Ser Ala			
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Ala Cys Ser Ser Pro Val Ser Arg Asn Ile Gln Asp Met Arg Pro Glu			
20	25	30	
Pro Gln Ala Glu Ala Gly Ser Ser Asp Ala Ile Pro Tyr Pro Val Pro			
35	40	45	
Thr Leu Gln Asp Arg Leu Asp Tyr Leu Glu Gly Thr Leu Val Arg Leu			
50	55	60	
Ser Asn Glu Val Glu Thr Leu Asn Gly Lys Val Lys Ala Leu Glu His			
65	70	75	80
Ala Lys Thr His Pro Ser Gly Arg Ala Tyr Val Gln Lys Leu Asp Asp			
85	90	95	
Arg Lys Leu Lys Glu His Tyr Leu Asn Thr Glu Gly Gly Ser Ala Ser			
100	105	110	
Ala His Thr Val Glu Thr Ala Gln Asn Leu Tyr Asn Gln Ala Leu Lys			
115	120	125	
His Tyr Lys Ser Gly Arg Phe Ser Ala Ala Ala Leu Leu Lys Gly			
130	135	140	
Ala Asp Gly Gly Asp Gly Gly Ser Ile Ala Gln Arg Ser Met Tyr Leu			
145	150	155	160
Leu Leu Gln Ser Arg Ala Arg Met Gly Asn Cys Glu Ser Val Ile Glu			
165	170	175	
Ile Gly Gly Arg Tyr Ala Asn Arg Phe Lys Asp Ser Pro Thr Ala Pro			

180	185	190
Glu Ala Met Phe Lys Ile Gly Glu Cys Gln Tyr Arg Leu Gln Gln Lys		
195	200	205
Asp Ile Ala Arg Ala Thr Trp Arg Ser Leu Ile Gln Ala Tyr Pro Ser		
210	215	220
Ser Pro Ala Ala Lys Arg Ala Ala Ala Val Arg Lys Arg		
225	230	235

<210> 13
<211> 1176
<212> DNA
<213> Neisseria meningitidis

<400> 13

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caacaatctg aagttcaaat tcctgaagt	gagctgattt atgtgaatca	tacgggttgct	180
cagttattat ataaggctca	gataaatca tcattcactc	agttggcga tggttatgct	240
tcggctggta cgctaataat	tgtgtatgtt ttggatatta	tgatttgaaa agccgcgcg	300
gcagtttgtt ttgggtgtgg	ccttcttcg atgggctcgg	gtagtgcga tcaaactaag	360
ttgccagagc agttggcac	ggcacgtggt acggttctg	tgccgtttgt tggcgatatt	420
tcgggtgtcg gtaaaacgccc	tgttcaggtt cagggaaatta	ttaaaggccg cctgaaaaaaaa	480
atggccaatc agccacaagt	gatgggtcggt ttgggtcaga	ataatgcggc gaatgtgtcg	540
gtgattcggt	ctgggaatag tggcgatgt	ccgctgacgg cagccggtaa	600
gatgcgggtt	ctgcggtagg tggtcaacg	gcaaatgtgc aggatacggaa	660
acacgtggca atgttagtacg	aactgttgc ttggaaagatt	tagttgc当地 tccgc当地	720
aatatttgc tgcgtcgcc	tgatgtgggtt accatgatta	ccaatcccta tacctttacg	780
tctatgggt	cgggtgggag aacacaagaa	atcggtttt cagccagagg cttatcgctt	840
tctgaagcca ttggccgtat	gggcgggtttt caagatcgcc	gttctgatgc gcgtgggtgt	900
tttgtgttcc gctatacgcc	attgggtggaa ttgcggcag	aacgtcagga taaatggatt	960
gctcaagggtt atggcagtga	ggcagagatt ccaacggat	atcggtgaa tatggctgat	1020
gcccattcgc tattttctat	gcagcgctt cctgtgaaga	ataaaagatgt attgtatgt	1080
tcgaatgcgc	cgttggctga agtgcagaaa	ttcttgcgtt ttgtgttctc gccgggttacc	1140
agtggcgca	acagtattaa taatttaact	aattaa	1176

<210> 14
<211> 391
<212> PRT
<213> Neisseria meningitidis

<400> 14

Met Phe Lys Val Lys Phe Tyr Ile Arg His Ala Val Leu Leu Cys			
1	5	10	15
Gly Ser Leu Ile Val Gly Cys Ser Ala Ile Pro Ser Ser Gly Pro Ser			
20	25	30	
Ala Lys Ile Val Ser Leu Gly Gln Gln Ser Glu Val Gln Ile Pro			
35	40	45	
Glu Val Glu Leu Ile Asp Val Asn His Thr Val Ala Gln Leu Leu Tyr			
50	55	60	
Lys Ala Gln Ile Asn Gln Ser Phe Thr Gln Phe Gly Asp Gly Tyr Ala			
65	70	75	80
Ser Ala Gly Thr Leu Asn Ile Gly Asp Val Leu Asp Ile Met Ile Trp			
85	90	95	
Glu Ala Pro Pro Ala Val Leu Phe Gly Gly Gly Leu Ser Ser Met Gly			
100	105	110	
Ser Gly Ser Ala His Gln Thr Lys Leu Pro Glu Gln Leu Val Thr Ala			
115	120	125	
Arg Gly Thr Val Ser Val Pro Phe Val Gly Asp Ile Ser Val Val Gly			
130	135	140	
Lys Thr Pro Gly Gln Val Gln Glu Ile Ile Lys Gly Arg Leu Lys Lys			
145	150	155	160
Met Ala Asn Gln Pro Gln Val Met Val Arg Leu Val Gln Asn Asn Ala			

	165	170	175
Ala Asn Val Ser Val Ile Arg Ala Gly Asn Ser Val Arg Met Pro Leu			
180	185	190	
Thr Ala Ala Gly Glu Arg Val Leu Asp Ala Val Ala Val Gly Gly			
195	200	205	
Ser Thr Ala Asn Val Gln Asp Thr Asn Val Gln Leu Thr Arg Gly Asn			
210	215	220	
Val Val Arg Thr Val Ala Leu Glu Asp Leu Val Ala Asn Pro Arg Gln			
225	230	235	240
Asn Ile Leu Leu Arg Arg Gly Asp Val Val Thr Met Ile Thr Asn Pro			
245	250	255	
Tyr Thr Phe Thr Ser Met Gly Ala Val Gly Arg Thr Gln Glu Ile Gly			
260	265	270	
Phe Ser Ala Arg Gly Leu Ser Leu Ser Glu Ala Ile Gly Arg Met Gly			
275	280	285	
Gly Leu Gln Asp Arg Arg Ser Asp Ala Arg Gly Val Phe Val Phe Arg			
290	295	300	
Tyr Thr Pro Leu Val Glu Leu Pro Ala Glu Arg Gln Asp Lys Trp Ile			
305	310	315	320
Ala Gln Gly Tyr Gly Ser Glu Ala Glu Ile Pro Thr Val Tyr Arg Val			
325	330	335	
Asn Met Ala Asp Ala His Ser Leu Phe Ser Met Gln Arg Phe Pro Val			
340	345	350	
Lys Asn Lys Asp Val Leu Tyr Val Ser Asn Ala Pro Leu Ala Glu Val			
355	360	365	
Gln Lys Phe Leu Ser Phe Val Phe Ser Pro Val Thr Ser Gly Ala Asn			
370	375	380	
Ser Ile Asn Asn Leu Thr Asn			
385	390		

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<211> 807

<212> DNA

<213> Neisseria meningitidis

<400> 15

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aaacaccagc	cgtgggacag	ccttttcccc	gccttgaaca	acggcgatgc	ggacgttgtg	300
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tttggaaatca	cccaagtctgt	cctcggttccg	aaaggcaaaa	aaatatcttc	ttccgaagat	420
tttggaaaaca	tgaacaaatgt	cggcgtggta	accgcgtaca	cgggcgattt	ctccgtatcc	480
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<210> 16

<211> 268

<212> PRT

<213> Neisseria meningitidis

<400> 16

Met Asn Met Lys Lys Trp Ile Ala Ala Leu Ala Cys Ser Ala Leu						
1	5	10	15			
Ala Leu Ser Ala Cys Gly Gly Gln Gly Lys Asp Ala Ala Ala Pro Ala						
20	25	30				
Ala Asn Pro Asp Lys Val Tyr Arg Val Ala Ser Asn Ala Glu Phe Ala						

35	40	45
Pro Phe Glu Ser Leu Asp Ser Lys Gly Asn Val	Glu Gly Phe Asp Val	
50	55	60
Asp Leu Met Asn Ala Met Ala Lys Ala Gly Asn Phe Lys Ile Glu Phe		
65	70	75
Lys His Gln Pro Trp Asp Ser Leu Phe Pro Ala Leu Asn Asn Gly Asp		
85	90	95
Ala Asp Val Val Met Ser Gly Val Thr Ile Thr Asp Asp Arg Lys Gln		
100	105	110
Ser Met Asp Phe Ser Asp Pro Tyr Phe Glu Ile Thr Gln Val Val Leu		
115	120	125
Val Pro Lys Gly Lys Lys Ile Ser Ser Ser Glu Asp Leu Lys Asn Met		
130	135	140
Asn Lys Val Gly Val Val Thr Gly Tyr Thr Gly Asp Phe Ser Val Ser		
145	150	155
Lys Leu Leu Gly Asn Asp Asn Pro Lys Ile Ala Arg Phe Glu Asn Val		
165	170	175
Pro Leu Ile Ile Lys Glu Leu Glu Asn Gly Gly Leu Asp Ser Val Val		
180	185	190
Ser Asp Ser Ala Val Ile Ala Asn Tyr Val Lys Asn Asn Pro Thr Lys		
195	200	205
Gly Met Asp Phe Val Thr Leu Pro Asp Phe Thr Thr Glu His Tyr Gly		
210	215	220
Ile Ala Val Arg Lys Gly Asp Glu Ala Thr Val Lys Met Leu Asn Asp		
225	230	235
Ala Leu Lys Lys Val Arg Glu Ser Gly Glu Tyr Asp Lys Ile Tyr Ala		
245	250	255
Lys Tyr Phe Ala Lys Glu Asp Gly Gln Ala Ala Lys		
260	265	